Handling Foods for Safety

Foodborne Illness

The United States has one of the safest food supplies in the world. However, at least seven million people are affected by foodborne illness (food poisoning) each year. Many cases of foodborne illness are not reported because they are confused with the "flu".

People who have foodborne illness usually feel sick for just a few days. Some individuals though, especially babies, small children and the elderly, may be more severely affected. In very severe cases, foodborne illness can require hospitalization and may even cause death.

Bacteria, viruses, parasites and fungi all cause foodborne illness. They cannot be seen, tasted or smelled. They hide on bodies, in the air, on kitchen counters and on utensils; they are even in food. Bacteria cause most foodborne illnesses. Just because bacteria are in food does not make the food unsafe to eat. Bacteria need a chance to grow before they become dangerous. Proper food handling practices reduce the likelihood that bacteria will be allowed to grow and contaminate the food.

Foodborne illnesses can be prevented if these four simple steps are followed:

- Clean: Wash hands and surfaces often. Good housekeeping, proper personal hygiene and sanitation of equipment and utensils will keep the food preparation, storage and meal service areas clean.

- Separate: Don't cross contaminate. When handling raw meat, poultry, seafood and eggs, keep these foods and their juices away from ready-to-eat foods. Use one cutting board for fresh produce and a separate one for raw meat, poultry and seafood.

- Cook: Bringing foods to a high internal temperature while cooking (see temperature chart on page V-4) and holding cooked foods at a high temperature (135°F) will keep them safe. Use a food thermometer to measure the internal temperature of cooked foods.

- Chill: Storing food at the right temperature stops the growth of bacteria and other microorganisms. Although microorganisms can survive in the refrigerator or freezer, they generally cannot reproduce at temperatures below 41°F.

Consult your State or local health department for possible variations in temperature guidelines.

Food Service Hazards

Food service kitchens are full of potential dangers for both employees and the people they serve. Foodborne illness is just one potential hazard. Pest problems, chemical contamination, physical contamination and on-the-job injuries are also hazards. It is important for food service workers to be aware of these hazards so steps can be taken to prevent them.

Pest problems occur because roaches, flies and rodents like to live where food is stored, prepared or served.

Chemical contamination occurs when chemicals used for cleaning, sanitizing and pest control are inappropriately stored.

Food becomes physically contaminated when dirt, hair, nail polish, broken glass, metal fragments and bits of packaging material come in contact with food.

On-the-job injuries, such as burns, strains, cuts, slips and falls, are common accidents that can occur in the kitchen.

Hazard Analysis of Critical Control Points (HACCP)

HACCP is a system for monitoring the food service process to reduce the risk of foodborne illness. It involves taking a look at the food handling practices as food flows though the food service operation, all the way from purchasing through serving.

A critical control point is any step, place, or procedure in a food's production where food safety hazards can be controlled or prevented. Critical control points are purchasing, receiving, storing, preparing, cooking and holding, cooling and reheating. Failure to take appropriate action at these critical control points could result in foodborne illness. Critical control points and steps food service workers can take to ensure food safety are included in this lesson.

Purchasing, Receiving and Storing Food

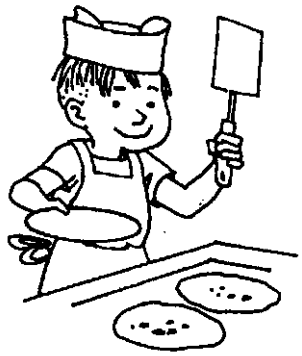
Examine all foods when delivered to make sure they are not spoiled, dirty or contaminated. Make sure frozen food is frozen when delivered. Do not accept frozen food that has thawed.

Refrigerate food immediately. Do not let refrigerated or frozen foods sit at room temperature.

Use foods on a "first-in, first-out" basis to prevent spoilage and food waste.

Store foods, such as flours, cereals, cornmeal, sugar, dry beans and dry peas in tightly covered containers to prevent rodent and insect infestation.

Preparing and Cooking Food



Do not allow people with infected cuts or sores, colds or other communicable diseases to prepare or serve food.

Wash hands thoroughly with soap and water before handling foods or utensils. Repeat after every visit to the restroom.

Wash hands, utensils and work surfaces thoroughly after contact with raw eggs, fish, meats or poultry.

Thoroughly wash all fruits and vegetables that will be served raw, such as lettuce, celery, carrots, apples and peaches.

Cook foods properly, following standardized procedures and recipe directions.
Do not overload containers when heating food. Use small, shallow pans so food will heat quickly.

Serving and Holding, Cooling and Reheating Food

Remember to keep hot food hot and cold food cold. Discard any food held at room temperature for more than 2 hours.

Cool foods quickly using small, shallow pans.

Throw out foods that are put on children's plates but not eaten.

Reheat foods to an internal temperature of 165°F.

Utensils and Equipment

All eating and drinking utensils must be properly handled. Utensils used for cooking should never be used for tasting. Also, cracked or chipped utensils should not be used. All appliances and equipment should be kept clean and in good working condition. Use only dish washing equipment that meets local health agency standards.

Follow these guidelines to keep food safe.

Category	Food	Temperature (°F)	Rest Time
Ground Meat & Meat Mixtures	Beef, Pork, Veal, Lamb	160	None
	Turkey, Chicken	165	None
Fresh Beef, Veal, Lamb	Steaks, roasts, chops	145	3 minutes
Poultry	Chicken & Turkey, whole	165	None
	Poultry breasts, roasts	165	None
	Poultry thighs, legs, wings	165	None
	Duck & Goose	165	None
	Stuffing (cooked alone or in bird)	165	None
Pork and Ham	Fresh pork	145	3 minutes
	Fresh ham (raw)	145	3 minutes
	Precooked ham (to reheat)	140	None
Eggs & Egg Dishes	Eggs	Cook until yolk and white are firm	None
	Egg dishes	160	None
Leftovers & Casseroles	Leftovers	165	None
	Casseroles	165	None
Seafood	Fin Fish	145 or cook until flesh is opaque and separates easily with a fork.	None
	Shrimp, lobster, and crabs	Cook until flesh is pearly and opaque.	None
	Clams, oysters, and mussels	Cook until shells open during cooking.	None
	Scallops	Cook until flesh is milky white or opaque and firm.	None

Source: www.foodsafety.gov

Ways to Recognize Food Spoilage	
These Foods:	Are Risky When:
Fresh Poultry	Stored raw in the refrigerator for longer than 1-2 days (3-4 days un cooked). Left unrefrigerated for more than 2 hours either before or after cooking
Fresh Meat	Stored raw in the refrigerator for longer than 3-4 days (1-2 days for hamburger). Discolored, smelly or slimy. Left unrefrigerated for more than 2 hours either before or after cooking.
Fresh Fish	Stored for longer than 1-2 days in the refrigerator. Dried at edges; smelly. Left unrefrigerated for more than 2 hours either before or after cooking.
Milk, Cream, Egg Products	Left unrefrigerated for more than 2 hours.
Frozen Meats, Poultry, Fish or Casseroles	Thawed at room temperature. Thawed, refrozen and thawed again. Eaten without thorough cooking.
Canned Foods Home canned foods should never be served in child care centers or day care homes.	Liquid spurts out when can is opened. Can is corroded, rusty, leaky, swollen on top or bottom or dented side seams. Contents have off-odors or a foamy or mushy texture. Stored at hot temperatures or allowed to freeze and thaw.
Fresh Fruits and Vegetables	Unwashed, moldy, soft or discolored.
Bread Products	Moldy Infested with insects.